

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and all prior listings, of claims in the application:

Listing of Claims:

1-2. (Cancelled)

3. (Currently Amended) A polishing solution for polishing a metal film surface, comprising:

(1) an additive which is capable of etching the metal film surface at an etching rate of 10nm/minute or lower, (2) a protective film-forming agent which, in combination with said additive, is capable of removing the metal film surface by chemical mechanical polishing at a polishing rate of at least 100nm/minute and an etching rate of not more than 10nm/minute, and (3) water,

wherein said additive is a combination of a first material which is an oxidizer of metal of the metal film surface, thereby forming an oxide of the metal, a second material which dissolves the oxide of the metal, and another protective film-forming agent (a) having properties different from those of said protective film-forming agent, and (b) exhibiting an effect of controlling the etching rate to not more than 10 nm/minute without incorporating said protective film-forming agent, said protective film-forming agent and said another protective film-forming agent together controlling etching rate, while maintaining chemical mechanical polishing rate, of the metal film surface, to be the polishing rate of at least 100 nm/minute and the etching rate of not more than 10 nm/minute.

4. (Cancelled)

5. (Cancelled)

6. (Previously presented) The polishing solution according to claim 3, consisting essentially of said additive, said protective film-forming agent and water.

7. (Currently Amended) The polishing solution according to claim 3, wherein said (2) protective film-forming agent is selected from the group consisting of compounds having an alcoholic or phenolic hydroxyl group, esters, ethers, polysaccharides, amino acid salts, polycarboxylic acids, polycarboxylates, vinyl polymers, amides, azo compounds and molybdenum compounds.

8. (Currently amended) The polishing solution according to claim 3, wherein said (2) protective film-forming agent is at least one selected from the group consisting of polyacrylic acids, polymethacrylic acids, polyamic acids, ammonium polyacrylates, ammonium polymethacrylates, ammonium polyamides and polyacrylamides.

9. (Previously presented) The polishing solution according to claim 3, which is adapted to polish a metal film surface including a material that contains at least one of copper, a copper alloy, a copper oxide and a copper alloy oxide.

10. (Previously Presented) A polishing solution for polishing a metal film surface, comprising:

(1) an additive which is capable of removing metal of said metal film surface by chemical mechanical polishing, (2) a first protective film-forming agent, (3) a second protective film-forming agent having properties different from those of the first protective film-forming agent, and (4) water, wherein a combination of the first protective film-forming agent and the second protective film-forming agent controls etching rate, while maintaining chemical mechanical polishing rate, of the metal.

11. (Previously presented) The polishing solution according to claim 10, wherein said additive is a combination of another protective film-forming agent and a material that oxidizes metal of the metal film surface.

12. (Previously presented) The polishing solution according to claim 10, said solution being capable of removing the metal film surface by chemical mechanical polishing at a polishing rate of at least 100nm/minute and at an etching rate of at most 10nm/ minute.

13. (Previously presented) The polishing solution according to claim 10, consisting essentially of said additive, said first protective film-forming agent, said second protective film-forming agent and water.

14-17. (Cancelled)